

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Takahisa KIDA et al.

Application No.: 10/568,076

Confirmation No.: 7445

Filed: February 13, 2006

Art Unit: 3723

For: OPTICAL FIBER CONNECTOR CLEANER,
AND METHOD OF CLEANING OPTICAL
FIBER CONNECTOR CONNECTION
SURFACE

Examiner: Randall E. Chin

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

In accordance with 37 CFR 1.97, Applicants hereby make of record the following additional documents. A PTO Form SB/08 and a full copy of each of the documents required under 37 CFR 1.98(a)(2) accompany this statement.

Applicants have become aware of the following documents, cited in a Canadian Official Action issued October 8, 2009, during the prosecution of the corresponding Canadian Application No. 2,535,418, which corresponds to the above referenced application, and in accordance with 37 CFR 1.97(c) and (e)(1) or (b)(3), hereby submits these documents for the Examiner's consideration. These documents are cited on the enclosed PTO Form SB/08, and a copy of the Canadian Official Action and of each document required under 37 CFR 1.98(a)(2) cited thereon are enclosed as well.

This statement is not to be interpreted as a representation that the cited documents are material, that an exhaustive search has been conducted, or that no other relevant information exists. Nor shall the citation of any document herein be construed *per se* as a representation that

such document is prior art. Moreover, Applicants understand the Examiner will make an independent evaluation of the cited documents.

This Supplemental Information Disclosure Statement is filed more than three months after the U.S. filing date, OR more than three months after the date of entry of the national stage of a PCT application, AND after the mailing date of the first Office Action on the merits, whichever occurs first, but before the mailing date of a Final Office Action or Notice of Allowance (37 CFR 1.97(c)).

I hereby certify, pursuant to 37 CFR 1.97(e)(1), that each item of information contained in this Supplemental Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement.

Furthermore, in accordance with 37 CFR 1.704(d), Applicants note that to our knowledge this communication was not received by any individual designated in 1.56(c) more than thirty days prior to the filing of this statement.

The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 23-2185, under Order No. 117386.0107.

Dated: December 14, 2009

Respectfully submitted,

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October 8, 2009

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Application No. : **2,535,418**
Owner : **SEIKOH GIKEN CO., LTD.**
Title : **OPTICAL FIBER CONNECTOR CLEANER, AND METHOD OF
CLEANING OPTICAL FIBER CONNECTOR CONNECTION
SURFACE**
Classification : **G02B 6/36 (2006.01)**
Your File No. : **08905159CA**
Examiner : **Timothy Kotylak**

YOU ARE HEREBY NOTIFIED OF A REQUISITION BY THE EXAMINER IN ACCORDANCE
WITH SUBSECTION 30(2) OF THE *PATENT RULES*. IN ORDER TO AVOID ABANDONMENT
UNDER PARAGRAPH 73(1)(a) OF THE *PATENT ACT*, A WRITTEN REPLY MUST BE
RECEIVED WITHIN 6 MONTHS AFTER THE ABOVE DATE.

This application has been examined taking into account the:

Description, pages 1 - 35, as originally filed;
Claims, 1 - 29, as originally filed; and
Drawings, pages 1/24 - 24/24, as originally filed.

The number of claims in this application is 29.

Unity of Invention

The examiner has identified the following subject-matter:

Group A - Claims 1-12 and 15-29 are directed to a fiber optic cleaner including tape
delivery means; and

Group B - Claims 13 and 14 are directed to a method for cleaning the end surface of a
ferrule.

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As the application is apparently directed to a plurality of inventions, the examiner has proceeded on the presumption that the applicant will elect the claims of **Group A**. This presumption does not affect the applicant's right to elect, one time, a different invention for prosecution. The scope of the search and examination of the claims was therefore restricted to the subject-matter of the claims of **Group A**.

The application does not comply with subsection 36(1) of the *Patent Act*. The claims are directed to a plurality of alleged inventions as indicated above. According to subsection 36(2) of the *Patent Act*, after limiting the claims of the present application to one invention only, the applicant may make any other invention disclosed the subject of a divisional application. The applicant is advised that once an election has been made, further prosecution of the present application will be limited to the invention so elected.

The search of the prior art has revealed the following:

References Applied

United States Patent

D1: 6,209,163 α 3 April 2001

CLAIRADIN et al.

Japanese Application

D2: 2002-090576 α 27 March 2002

AOYAMA et al.

α citation stemming from a foreign search report

D1 discloses a fiber cleaner for cleaning the end of a fiber optic ferrule, including a housing having a mating portion for mating the cleaner with the fiber optic connector.

D2 discloses a cleaner for cleaning the end face of an optical connector, the cleaner having a groove provided protruding from a rotating element through which the cleaning thread wound by a coil is passed.

Obviousness

With regards to claim 1, D1 discloses (figures 1-6) a optical fiber connector cleaner 14 (column 3, lines 6-9) comprising:

- a) a housing 16 ;

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- b) a cleaning tape winding means (take up reel 38) and cleaning tape delivery means (supply reel 36) arranged inside the housing;
- c) a cleaning means having a bar-like cleaning section (nose 28) projecting outwardly from the housing, on the front-end of the cleaning section the cleaning tape 70 (figure 5) delivered from the delivery means 36 being movably mounted under tension in an exposed state, the front-end of the cleaning section being brought into contact with the end surface of an optical fiber connector to thereby clean the end surface, and
- d) a transmission means (ratcheting handle 60) which rotates the winding means and the cleaning section rotating means substantially simultaneously in a predetermined direction through a predetermined angle and then reverses the cleaning section rotating means to its original position (column 4, lines 25-28).

D1 does not explicitly disclose a cleaning section rotating means coaxially connected to the cleaning section in the housing and rotatably supported with respect to the housing; however, D2 discloses such a feature including rotating means 32,35a,35b (figure 7) which is coaxially attached to the cleaning section 33 and rotatably supported w.r.t the housing 1. Therefore, claim 1 is obvious with regards to D1 and D2 as one skilled in the art would apply the rotating means as taught in D2 to the cleaner drive means in D1 in order to improve the mechanism for the cleaning of fibers by the use of a rotational movement of the cleaning tape.

Claim 2 is also obvious as D1 further discloses tape guide means also connected to the cleaning section (figure 7).

Claim 3 is obvious as D1 discloses transmission means 60 rotating the winding means 38, and the delivery means 36 and the cleaning tape rotating means simultaneously.

Claim 4 is obvious as D1 further discloses a hollow like bar member (nose 28) and a smooth member embodied as a backing member 32 (figure 3) arranged at the end of the bar like member.

Claims 5 and 6 are obvious as D1 discloses a bar member 28 and a pivot on a roller 32a rotatably mounted at the end of the bar like member which is the main part of the cleaning section (figure 3).

Claims 7 and 8 are obvious as D1 discloses the use of woven cloth for the cleaning tape (column 4, lines 35-38).

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Claims 9 and 10 are obvious as D1 discloses transmission means includes an arm 60 that rises and lowers in vertical direction, and the transmission means is configured such that due to the downward movement of the arm 60 the winding means 38 is rotated to a first angle in a first direction while simultaneously the cleaning section rotating means is rotated to a second angle in second direction, moreover due to the upward movement of the arm the cleaning part rotating means is rotated to the second angle in the opposite direction to the second direction (column 4, lines 8-22 and figure 2, 3, and 5), and delivery means 36 is also rotated to the first angle in a third direction.

Claim 12 is obvious as D1 discloses transmission means 60 having a plurality of notches on a pawl 64 formed along the longitudinal direction thereof, including a pinion having a plurality of teeth 62a which engage the rack, the cleaning section rotates in response to the ascent or descent of the arm (column 3, line 53 - column 4, line 7).

Claims 15 and 16 are obvious as all features and limitations are taught in former objected to claims 1, 2 and D1 further discloses inner bar like guides 28b and outer side members (outer nose structure) which co-operate together as claimed (column 3, 28-40).

Claims 17 and 18 are obvious as D1 discloses cover 18 (figure 1) including a tubular section 28 having an insertion hole (figure 6), also the cover including a cap near shaft 33 which covers the hole.

Claim 19 recites the features and limitations found in claims 1, 2, and 15; and D1 also discloses the further features and limitations defined including a ratcheting handle 60, drive means 50, 62, 63, and winding means 38.

Claims 20-26 are also obvious in view of D1 and D2, as D1 further recites the features and limitations defines in said claims including:

- a) the forward and backward rotation of the bar like member (figure 3 and associated text),
 - b) pinion in the rotating drive means (figure 2-5, column 3, line 53 - column 4, line 22),
 - c) ratcheting mechanisms attached to drive plates which rotate around a shaft (figures 2-5; column 3, line 53- column 4, line 22),
 - d) spring means 31 (figure 5); and
- D2 reciting the following features:
- e) a tubular guide sleeve rotatably supported in the housing which slides along the inner surface of the guide sleeve (figure 7).

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Claims 27-29 fail to add inventive subject matter over the teachings of D1 and D, thus also fail to overcome the obviousness objection.

Claims 1 - 12, and 15 - 29 do not comply with section 28.3 of the *Patent Act*. The subject matter of these claims would have been obvious on the claim date to a person skilled in the art or science to which they pertain having regard to D1 and D2.

Description

The description contains a statement that incorporates by reference another document and does not comply with subsection 81(1) of the *Patent Rules*. Such a statement is found at page 35, lines 1 - 4 and should be removed.

The description refers to a document not available to the public and does not comply with subsection 81(2) of the *Patent Rules*. Reference to the document on page 1, lines 24-25 and page 35, lines 1 - 4 must be deleted or replaced by its corresponding patent or publication number.

In view of the foregoing defects, the applicant is requisitioned, under subsection 30(2) of the *Patent Rules*, to amend the application in order to comply with the *Patent Act* and the *Patent Rules* or to provide arguments as to why the application does comply.

Timothy Kotylak
Patent Examiner
819-934-5150